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LEVEL news

Great Lakes - St. Lawrence River Water Levels

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October Precipitation Over the Great Lakes

As a percentage of the long-term October average:

Great Lakes Basin	99%
Lake Erie (including Lake St. Clair)	75%
Lake Superior	136%
Lakes Michigan-Huron	95%
Lake Ontario	62%

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Dry Conditions Persist

Rapid Descent in Lake Levels Continues

Water levels on all of the Great Lakes continued to decline rapidly during October. Dry weather and warm temperatures led to below average runoff, and also caused above average evaporation.

For the seventh consecutive month, net basin supplies to both Lake Superior and Lakes Michigan-Huron were below average. The net basin supply consists of the combination of rain that falls directly on the lake plus runoff that enters the lake from the surrounding basin minus evaporation from the lake's surface. In the case of Lake Superior, the net basin supply has been below average during 16 of the past 18 months. This extended period of below average water supplies to these lakes has driven the decline in their levels.

At the beginning of November, Lake Superior was 29 cm below average level, and only four cm above chart datum. Lake Huron was two cm above average level.

The water levels of Lakes St. Clair and Erie have also been declining quickly, in part due to the weather conditions and also due to reduced inflow from Lake Huron. These two lakes are now 18 cm above their average levels. The risk of extensive flood and storm damage along the shores of these lakes has decreased considerably with the decline in water levels.

During October, Lake Ontario's level declined at the fastest rate of any of the Great Lakes. At the beginning of November, its level was 17 cm below average.

Low Water Levels at Montreal

Very low flows of the Ottawa River in October led to low water level conditions at Montreal Harbour. Last month's level was about one-half metre below average, and only 12 cm above the October record low experienced over the past 32 years. By month end, the harbour's level was very close to chart datum.

While the flows from Lake Ontario last month were more than average, the amount has been gradually reduced due to the fast decline of Lake Ontario's

Note: These figures are preliminary.

October Outflows From the Great Lakes

As a percentage of the long-term October average:

Lake Superior	66%
Lake Erie	107%
Lake Huron	100%
Lake Ontario	108%

Note: These figures are preliminary.

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Summary information for "LEVEL*news*"

water levels.

To ensure levels remain above chart datum at Montreal, the International St. Lawrence River Board of Control authorized short-term increases in the Lake Ontario outflow on two occasions last month. The Board has also authorized further limited outflow increases should the need to maintain chart datum at Montreal arise.

As mentioned in the September Level News, the outflow from Lake Ontario was reduced slightly for a three week period in August and September, and again for three days in October to help marina operators in hauling out their boats on Lake St. Lawrence. The effect of this deviation from the regulation plan was to raise Lake Ontario's level by three centimetres. The intention was to increase the outflow above that called for by the regulation plan between mid-October and late December in order to discharge the three centimetres.

When mid-October arrived, Lake Ontario's level had fallen to below average, and the International St. Lawrence Board of Control agreed to defer beginning the discharge of the three centimetres. This water will probably be discharged over the next few weeks in order to help keep the water level at Montreal Harbour near chart datum for as long as possible. However, it is quite probable that the harbour's level will drop below chart datum over the coming weeks.

Long Lac and Ogoki Diversions

Since the early 1940's, the flow of two rivers that naturally drained northward to James Bay has been diverted into Lake Superior. Due to very dry conditions, the diversions have been much less than usual this year. During the period from March through August 1998, the combined amount of these two diversions was only 26 percent of average. This reduction in water available for diversion is an indicator of the impact that the dry, warm conditions of the past several months had on runoff from the northern part of Lake Superior's drainage basin.

Repairs Completed

Repairs to the U.S. portion of the Compensating Works in the St. Marys River at Sault Ste. Marie were completed this summer. This repair program was initiated in 1995, and a part of the repairs was undertaken each of the past four summers. All repairs to the Canadian portion were completed in 1996. Gate repairs this year did not require flow deviations from the regulation plan, and did not impact lake levels.

Niagara Public Meeting

The International Niagara Board of Control held an open house that was sparsely attended on October 20th in Buffalo, New York. A presentation was made on Board and International Joint Commission (IJC) membership, Board duties, Great Lakes levels and the Lake Erie - Niagara River Ice Boom. Presentations were also made by representatives of Ontario Hydro on a proposed new diversion tunnel to supply water to the Sir Adam Beck hydro-

electric generating stations and by the Buffalo and Fort Erie Public Bridge Authority on a proposed new bridge between Fort Erie and Buffalo. The Board, its associates and four IJC Commissioners discussed these and other items of interest with the public.

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